

What is claimed is:

1. A non-stick cooking utensil having inner walls, wherein the inner walls have a non-smooth surface with convex units, the height (h) of the units ranges from 20 μ m to 999 μ m and the projection area of the convex units on the surface of the inner wall ranges from 314 μ m² to 783431 μ m², wherein the distribution density of the convex units, defined as the ratio of the total geometrical projection area of the convex units on the base body surface of the inner wall to the area of the base body surface, ranges from 10% to 60%; and wherein a surface film is formed on the surfaces of the non-smooth convex units.

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2. The non-stick cooking utensil of claim 1, wherein each convex unit is shaped like a spherical crown, and the bottom circle diameter (ϕ) of the spherical crown ranges from 20 μ m to 999 μ m.

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3. The non-stick cooking utensil of claim 1, wherein each convex unit is shaped like a cylinder, and the diameter (ϕ) of the cylinder ranges from 20 μ m to 999 μ m.

4. The non-stick cooking utensil of claim 1, wherein the surface film is an oxidized film.

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5. The non-stick cooking utensil of claim 1, wherein the surface film is a phosphatized film.

6. The non-stick cooking utensil of claim 1, wherein the surface film is a metal film having at least one of titanium and chromium, or a nitrided film of metal and nitrogen.

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